<u>Amendments to Claims</u>:

This listing of claims will replace all prior versions and listings of the claims in the application:

<u>Listing of Claims:</u>

1. (original)   An apparatus for detecting a power ratio between a first channel and a second channel in a mobile communication system, comprising:

a channel estimator for generating a first signal by performing channel estimation using the first channel signal;

a channel compensator for generating a second signal by channel-compensating the second channel signal using the first signal; and

a power ratio detector for generating absolute values of symbols constituting the second signal, selecting absolute values in a predetermined length after sorting the absolute values in magnitude order, calculating an average value of the selected absolute values, calculating a square of an absolute value of the first signal, and generating the power ratio using a ratio of the average value to the square of the absolute value of the first signal.

2. (original)   The apparatus of claim 1, wherein the power ratio detector comprises:

an absolute value generator for receiving symbols constituting the second signal and generating an absolute value of each of the symbols;

a sorter for sorting absolute values generated by the absolute value generator in magnitude order;

an average value calculator for selecting absolute values in a predetermined length among the sorted absolute values, and calculating an average value of the selected absolute values;

a squarer for calculating a square of an absolute value of the first signal; and

a power ratio generator for generating the power ratio by a ratio of the average value to the square of the absolute value of the first signal.

3. (original)   The apparatus of claim 1, wherein the predetermined length is a length determined by separating the sorted absolute values into a predetermined number of lengths centering on a preset reference point, selecting a length including a minimum value of the absolute values among the predetermined number of lengths, and selecting a preset length from the selected length.

4. (original)   The apparatus of claim 3, wherein the reference point is determined according to a modulation scheme of the second channel.

5. (currently amended) The apparatus of claim 3, wherein the preset length includes absolute values determined by excluding a preset number of absolute values among absolute values exitingexisting in the selected length in descending order from a maximum value and a preset number of absolute values among the absolute values exitingexisting in the selected length in ascending order from a minimum value.

6. (original)   An apparatus for detecting a power ratio between a first channel and a second channel in a mobile communication system, comprising:

an absolute value generator for receiving symbols constituting a first signal generated by channel-compensating the first channel signal;

a sorter for sorting absolute values generated by the absolute value generator in magnitude order;

an average calculator for selecting absolute values in a predetermined length among the sorted absolute values, and calculating an average value of the selected absolute values;

a squarer for calculating a square of an absolute value of a second signal generated by performing channel estimation using the second channel signal; and

a power ratio generator for generating the power ratio by a ratio of the average power to the square of the absolute value of the second signal.

7. (original)   The apparatus of claim 6, wherein the predetermined length is a length determined by separating the sorted absolute values into a predetermined number of lengths centering on a preset reference point, selecting a length including a minimum value of the absolute values among the predetermined number of lengths, and selecting a preset length from the selected length.

8. (original)   The apparatus of claim 7, wherein the reference point is determined according to a modulation scheme of the first channel.

9. (currently amended)   The apparatus of claim 7, wherein the preset length includes absolute values determined by excluding a preset number of absolute values among absolute values ~~exiting~~existing in the selected length in descending order from a maximum value and a preset number of absolute values among the absolute values ~~exiting~~existing in the selected length in ascending order from a minimum value.

10. (original)   An apparatus for detecting a power ratio between a first channel and a second channel in a mobile communication system, comprising:

a channel estimator for generating a first signal by performing channel estimation using the first channel signal;

a channel compensator for generating a second signal by channel-compensating the second channel signal using the first signal; and

a power ratio detector for generating absolute values of symbols constituting the second signal, selecting absolute values in a predetermined length after sorting the absolute values in magnitude order, detecting a center value of the predetermined length, calculating a square of an absolute value of the first signal, and generating the power ratio using a ratio of the center value to the square of the absolute value of the first signal.

11. (original)   The apparatus of claim 10, wherein the power ratio detector comprises:

an absolute value generator for receiving symbols constituting the second signal, and generating an absolute value of each of the symbols;

a sorter for sorting absolute values generated by the absolute value generator in magnitude order;

a selector for selecting absolute values in a predetermined length among the sorted absolute values, and selecting a center value of the predetermined length;

a squarer for calculating a square of an absolute value of the first signal; and

a power ratio generator for generating the power ratio by a ratio of the center value to the square of the absolute value of the first signal.

12. (original)   The apparatus of claim 10, wherein the predetermined length is a length determined by separating the sorted absolute values into a predetermined number of lengths centering on a preset reference point, selecting a length including a minimum value of the absolute values among the predetermined number of lengths, and selecting a preset length from the selected length.

13. (original)   The apparatus of claim 12, wherein the reference point is determined according to a modulation scheme of the second channel.

14. (original) The apparatus of claim 12, wherein the preset length includes absolute values determined by excluding a preset number of absolute values among absolute values existing in the selected length in descending order from a maximum value and a preset number of absolute values among the absolute values existing in the selected length in ascending order from a minimum value.

15. (original)   An apparatus for detecting a power ratio between a first channel and a second channel in a mobile communication system, comprising:

an absolute value generator for receiving symbols constituting a first signal generated by channel-compensating the first channel signal, and generating an absolute value of each of the symbols;

a sorter for sorting absolute values generated by the absolute value generator in magnitude order;

a selector for selecting absolute values in a predetermined length among the sorted absolute values, and selecting a center value of the predetermined length;

a squarer for calculating a square of an absolute value of a second signal generated by performing channel estimation using the second channel signal; and

a power ratio generator for generating the power ratio by a ratio of the center value to the square of the absolute value of the second signal.

16. (original)   The apparatus of claim 15, wherein the predetermined length is a length determined by separating the sorted absolute values into a predetermined number of lengths centering on a preset reference point, selecting a length including a minimum value of the absolute values among the predetermined number of lengths, and selecting a preset length from the selected length.

17. (original)   The apparatus of claim 16, wherein the reference point is determined according to a modulation scheme of the first channel.

18. (original)   The apparatus of claim 16, wherein the preset length includes absolute values determined by excluding a preset number of absolute values among absolute values existing in the selected length in descending order from a maximum value and a preset number of absolute values among the absolute values existing in the selected length in ascending order from a minimum value.

19. (original)   An apparatus for detecting a power ratio between a first channel and a second channel in a mobile communication system, comprising:

a channel estimator for generating a first signal by performing channel estimation using the first channel signal;

a channel compensator for generating a second signal by channel-compensating the second channel signal using the first signal; and

a power ratio detector for generating absolute values of symbols constituting the second signal, calculating an average value of the absolute values, calculating a 1/2 value of the average value, and then generating the power ratio by a ratio of the 1/2 average value to a square of an absolute value of the second signal.

20. (original)   The apparatus of claim 19, wherein the power ratio detector comprises:

an absolute value generator for receiving symbols constituting the second signal and generating an absolute value of each of the symbols;

an 1/2 average value calculator for calculating an average value of the absolute values and calculating a 1/2 value of the average value;

a squarer for calculating a square of an absolute value of the first signal; and

a power ratio generator for generating the power ratio by a ratio of the 1/2 average value to the square of the absolute value of the first signal.

21. (currently amended)   An apparatus for generating a power ratio between a first channel and a second channel in a mobile communication system, comprising:

an absolute value generator for receiving symbols constituting a first signal generated by channel-compensating the first channel signal;

a 1/2 average value calculator for calculating an average value of the absolute values and calculating a 1/2 value of the average value;

a squarer for calculating a square of an absolute value of a second signal generated by performing channel estimation using the second channel signal; and

a power ratio generator for generating the power ratio by a ratio of the 1/2 ~~power~~average value to the square of the absolute value of the second signal.

22. (original) A method for detecting a power ratio between a first channel and a second channel in a mobile communication system, comprising the steps of:

generating a first channel signal by performing channel estimation using the first channel signal;

generating a second signal by channel-compensating the second channel signal using the first signal; and

generating absolute values of symbols constituting the second signal, selecting absolute values in a predetermined length after sorting the absolute values in magnitude order, calculating an average value of the selected absolute values, calculating a square of an absolute value of the first signal, and generating the power ratio using a ratio of the average value to the square of the absolute value of the first signal.

23. (original) The method of claim 22, wherein the predetermined length is a length determined by separating the sorted absolute values into a predetermined number of lengths

centering on a preset reference point, selecting a length including a minimum value of the absolute

values among the predetermined number of lengths, and selecting a preset length from the selected

length.

24. (original)   The method of claim 23, wherein the reference point is determined according

to a modulation scheme of the second channel.

25. (original)   The method of claim 23, wherein the preset length includes absolute values

determined by excluding a preset number of absolute values among absolute values existing in the

selected length in descending order from a maximum value and a preset number of absolute values

among the absolute values existing in the selected length in ascending order from a minimum value.

26. (original)   A method for detecting a power ratio between a first channel and a second

channel in a mobile communication system, comprising the steps of:

generating an absolute value of each of symbols constituting a first signal generated by

channel-compensating the first channel signal;

sorting the absolute values in magnitude order;

selecting absolute values in a predetermined length among the sorted absolute values, and

calculating an average value of the selected absolute values;

calculating a square of an absolute value of a second signal generated by performing

channel estimation using the second channel signal; and

generating the power ratio by a ratio of the average value to the square of the absolute value

of the second signal.

27. (original)   The method of claim 26, wherein the predetermined length is a length determined by separating the sorted absolute values into a predetermined number of lengths centering on a preset reference point, selecting a length including a minimum value of the absolute values among the predetermined number of lengths, and selecting a preset length from the selected length.

28. (original)   The method of claim 27, wherein the reference point is determined according to a modulation scheme of the first channel.

29. (original)   The method of claim 27, wherein the preset length includes absolute values determined by excluding a preset number of absolute values among absolute values existing in the selected length in descending order from a maximum value and a preset number of absolute values among the absolute values existing in the selected length in ascending order from a minimum value.

30. (original)   A method for detecting a power ratio between a first channel and a second channel in a mobile communication system, comprising the steps of:

generating a first signal by performing channel estimation using the first channel signal;

generating a second signal by channel-compensating the second channel signal using the first signal; and

generating absolute values of symbols constituting the second signal, selecting absolute values in a predetermined length after sorting the absolute values in magnitude order, calculating a center value of the predetermined length, calculating a square of an absolute value of the first signal,

and generating the power ratio using a ratio of the center value to the square of the absolute value of

the first signal.

31. (original) The method of claim 30, wherein the predetermined length is a length

determined by separating the sorted absolute values into a predetermined number of lengths

centering on a preset reference point, selecting a length including a minimum value of the absolute

values among the predetermined number of lengths, and selecting a preset length from the selected

length.

32. (original) The method of claim 31, wherein the reference point is determined according

to a modulation scheme of the second channel.

33. (original) The method of claim 31, wherein the preset length includes absolute values

determined by excluding a preset number of absolute values among absolute values existing in the

selected length in descending order from a maximum value and a preset number of absolute values

among the absolute values existing in the selected length in ascending order from a minimum value.

34. (original) A method for detecting a power ratio between a first channel and a second

channel in a mobile communication system, comprising the steps of:

generating an absolute value of each of symbols constituting a first signal generated by

channel-compensating the first channel signal;

sorting the generated absolute values in magnitude order;

selecting absolute values in a predetermined length among the sorted absolute values and selecting a center value of the predetermined length;

calculating a square of an absolute value of a second signal generated by performing channel estimation using the second channel signal; and

generating the power ratio by a ratio of the center value to the square of the absolute value of the second signal.

35. (original)   The method of claim 34, wherein the predetermined length is a length determined by separating the sorted absolute values into a predetermined number of lengths centering on a preset reference point, selecting a length including a minimum value of the absolute values among the predetermined number of lengths, and selecting a preset length from the selected length.

36. (original)   The method of claim 35, wherein the reference point is determined according to a modulation scheme of the first channel.

37. (original)   The method of claim 35, wherein the preset length includes absolute values determined by excluding a preset number of absolute values among absolute values existing in the selected length in descending order from a maximum value and a preset number of absolute values among the absolute values existing in the selected length in ascending order from a minimum value.

38. (original)   A method for detecting a power ratio between a first channel and a second channel in a mobile communication system, comprising the steps of:

generating a first signal by performing channel estimation using the first channel signal;

generating a second signal by channel-compensating the second channel signal using the first signal; and

generating absolute values of symbols constituting the second signal, calculating an average value of the absolute values, calculating a 1/2 value of the average value, and then generating the power ratio by a ratio of the 1/2 average value to a square of an absolute value of the first signal.

39. (original)   A method for detecting a power ratio between a first channel and a second channel in a mobile communication system, comprising the steps of:

generating an absolute value of each of symbols constituting a first signal generated by channel-compensating the first channel signal;

calculating an average value of the absolute values and calculating a 1/2 value of the average value;

calculating a square of an absolute value of a second signal generated by performing channel estimation using the second channel signal; and

generating the power ratio by a ratio of the 1/2 average value to the square of the absolute value of the second signal.